PRAIRIE PIPING PLOVER CONSERVATION: THIRD ANNUAL REPORT (1990)

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OCTOBER 1991

Environment Canada Environnement Canada
Canadian Wildlife Service Service canadien de la faune
Canada

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I thank D. Hjertaas (Saskatchewan Wildlife Branch) and Dr. Roger Edwards (Canadian Wildlife Service) for reviewing this report. I also thank Steve Brechtel, Gary Erickson and Dave Moore (Alberta Fish and Wildlife), W. (Bill) Koonz (Manitoba Wildlife Branch) and W. Harris for providing me with unpublished information.

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1.0 OVERVIEW

In anticipation of the first international Piping Plover survey, various agencies have continued efforts during 1990 toward completing the distribution picture of the Piping Plover in Prairie Canada. Although much effort has been put into this task, not all sites have been covered to feel confident that all breeding locations have been accounted for. However, I think we can say that most breeding locations have been discovered. The Prairie Canada monitoring program, initiated in 1989 (Goossen 1990a), is starting to provide comparative information on populations and productivity at various sites. The initial productivity analysis is not encouraging as regional chick numbers are down from last year. Over a dozen agencies were active in promoting plover research and conservation in the prairies. With the continuing support of various agencies, the Prairie Piping Plover Recovery Team (PPPRT) will be able to continue to assess the plover's plight and hopefully secure a continuing niche for this species in the prairie-wetland ecosystem.

2.0 PRAIRIE PIPING PLOVER RECOVERY TEAM MEETING

The third meeting of the PPPRT was held in Edmonton, Alberta on 25, 26 September 1990. Two representatives from the Atlantic Piping Plover Recovery Team (Bruce Johnson and Pierre Laporte) and one (John Sidle) from the Great Lakes/ Northern Great Plains Piping Plover Recovery Team gave the meeting a national and international flavour. Fifteen people attended various parts of the meeting. Discussion topics included agency reports, international survey planning, and management needs.

H. Dundas gave a presentation on her Piping Plover habitat project which she is beginning for her Masters degree through the University of Saskatchewan (see Section 9.0).

3.0 STATUS OF THE NATIONAL RECOVERY PLAN

C. Dauphiné of the Canadian Wildlife Service (CWS) reported that jurisdictional comments will be incorporated into the recovery plan, before being sent back to agencies for final comment. After finalization, the plan will be published.

4.0 REGIONAL RESEARCH AND CONSERVATION ACTIVITIES

Much of the information in this section, originates from reports submitted by the prairie provincial wildlife branches (Brechtel 1990, Hjertaas 1990, Koonz 1990) to the PPPRT at its 1990 fall meeting. These reports can be found in Appendix 1. The following then provides an overview of these reports as well as additional information.

ALBERTA

Alberta Fish and Wildlife (AFW): Sweetgrass Consultants Ltd., under contract to AFW, checked six historic or potential Alberta nesting areas. No plovers were found (Wershler in prep.). AFW located a

previously unknown site for nesting plovers at Keho Lake (Brechtel 1990). Adults and four young were seen there on 20 July 1990 while the maximum number of adults seen during May-July observations was 4 on 3 July 1990 (G. Erickson in litt.). A pair of Piping Plovers was seen at Spiers Lake on 31 May 1990 (P. Young, in litt. to S. Brechtel). A single Piping Plover and a pair were seen at a slough northwest of Metiskow on 25 May 1990 (D. Moore in litt.). This is the same location where in 1987 (D. Moore in litt.) five young and eight adults were found (Wershler, C. R. 1988. Piping Plover breeding habitat census and monitoring program Alberta 1987. Unpublished report prepared for World Wildlife Fund Canada, Alberta Fish and Wildlife and the Canadian Wildlife Service. 6 pp. plus four maps). AFW also carried out pair/brood surveys at Little Fish Lake where populations remained high at a maximum of 48 adults (Hofman 1990), one less than last year (Wershler, C. 1989. Piping Plover surveys in Alberta, 1989. Unpublished report prepared for Alberta Fish and Wildlife. 10 pp. plus tables and figures) however the number of young during July was fewer in 1990, with only 11 reported (Hofman 1990), compared to 18 in 1989 (Wershler, ibid.).

In anticipation of the 1991 international survey, AFW initiated a one day training session, led by CWS on 24 May 1990 at Little Fish, Handhills and Dowling lakes. AFW also met with CWS in December to discuss international survey plans for east-central Alberta.

Habitat protection efforts at Little Fish Lake resulted in fencing off cattle from parts of the shoreline. Additional fencing is needed and negotiations are continuing to accomplish this requirement (Brechtel 1990).

An attractive brochure (Anonymous 1990) on the Piping Plover was produced by and is available through AFW.

Canadian Wildlife Service: CWS carried out breeding adult and brood surveys at seven Alberta sites for the second consecutive year. The intensive breeding ecology fieldwork in the Hanna area has ended and CWS plans to start writing up the data during 1991/92 for future publication.

CWS, in cooperation with Instituto de Ecología y Sistemática of the Academia de Ciencias de Cuba, carried out surveys to search for Piping Plovers in Matanza province, Cuba in February 1990 (Goossen and Sirois 1990). Although only one Piping Plover was found, CWS generated interest in the species and subsequent reports have come in of additional sightings. A note is being prepared to document records of Piping Plovers in Cuba. CWS also encouraged Cuba to participate in the international Piping Plover survey.

For the first time, during February 1990, all four North American Piping Plover Recovery Teams were represented at one location (Florida). CWS, representing the Canadian recovery teams, participated in team recovery meetings and attended a meeting on wintering aspects of the plover.

SASKATCHEWAN

Saskatchewan Natural History Society (SNHS): In September 1990, SNHS appointed Margaret Skeel as Saskatchewan coordinator for the Saskatchewan portion of the 1991 international census. Margaret compiled a list of lakes to be surveyed, temporarily assigned survey

blocks to surveyers and prepared a proposal to the Endangered Species Recovery Fund for funding assistance.

Saskatchewan Wildlife Branch: The Saskatchewan Wildlife Branch (SWB) arranged for distribution surveys to be done in an effort to further determine the distribution of the plover in Saskatchewan, particularly in light of the upcoming international Piping Plover survey. These surveys were carried out by Prairie Environmental Services, Inc. (Hjertaas 1990) which examined 91 waterbodies and basins but found only 24 plovers (Hjertaas 1991). The Missouri Couteau, an escarpment in southern Saskatchewan (Richards, J. H. and K. I. Fung. (eds.). 1969. Atlas of Saskatchewan. University of Saskatchewan, Saskatoon. 190 pp. plus an appendix.), was found to have Piping Plovers on some basins which raises the possibility of more lakes having plovers in that physiographic region. This will present a challenge for surveyers involved with counting plovers in that area during the 1991 international survey. No Piping Plovers were found on the enhanced habitat area at Little Quill Lake and Chaplin Lake (Hjertaas 1990).

Following a visit with an official of the Saskatchewan Water Corporation, regarding concerns about the impact of Gardiner Dam on Piping Plovers using the South Saskatchewan River below the dam and the shores of Lake Diefenbaker, SWB and CWS prepared recommendations to encourage the South Saskatchewan River Basin Study to identify the need to protect and enhance plover nesting habitat (Hjertaas 1990).

Saskatchewan Environmental Society (SES): SES and CWS provided support for Prairie Environmental Services Inc. to carry out the Saskatchewan pair and brood surveys.

MANITOBA

Manitoba Wildlife Branch (MWB): The MWB carried out pair and brood surveys (Koonz 1990) at the three designated sites identified at the 1989 PPPRT meeting (Goossen 1990a). In addition to these surveys, two islands in Lake Winnipeg, previously unknown Piping Plover sites, were surveyed in July. One, Gull Island (52° 08'N 97° 21'W), had 3 adults and 3 juveniles present while the other, most northerly of the Egg Islands (51° 54'N 97° 05'W) had two adults. These islands were two of more than 80 islands checked for various bird species during 1990. More islands will be checked in 1991. On 29 May 1990, 13 adults and two nests were found at Grand Marais (see map in Goossen 1990a), but later only 10 adults and no young were found on 2 July 1990. Piping Plover habitat was subjected to All Terrain Vehicle traffic (Clandeboyne Bay, Grand Marais, one of the Riverton islands, northern Gull Bay Sand Spit - Long Point) and flooding (West Shoal Lake, Grand Marais, southern Gull Bay Sand Spit - Long Point area). The northern Gull Bay Sand Spit is soon to be officially designated as a Special Conservation Area. Hopefully, this recognition will aid Piping Plover conservation at this site. One metal banded only and eleven colour banded plovers were noted during the surveys (Koonz 1990).

The passing of the Endangered Species Act in Manitoba will hopefully give more protection to the plover and its habitat. Besides

Manitoba, three other provinces, Ontario, New Brunswick and Quebec, have legislation dealing with endangered species (see Goossen 1990b).

ONTARIO

Ontario Ministry of Natural Resources: Surveys for Piping Plovers were carried out at Sable Islands Provincial Nature Reserve and Windy Point. Only two pair were found on Sable Islands on 30 May 1990. On 28 July 1990, an adult, a fledged chick and another adult were observed. No plovers were seen at Windy Point on either of the above dates (Heyens 1990). L. Heyens (pers. comm.) reported one Piping Plover sighting for southern Ontario - a single adult at Turkey Point Beach, Lake Erie on 26 April 1990. Data from United States surveys carried out on nearby Lake of the Woods islands in Minnesota showed continuing declines of Piping Plovers for the second year in a row. This population is down 67% of what it was in 1983 and 1984 (Maxson and Haws 1990).

A management plan is in preparation for the Sable Islands Provincial Nature Reserve which will hopefully include Piping Plover management guidelines (L. Heyens pers. comm.; 1990 PPPRT meeting minutes). Also, concerns for the Piping Plover were addressed at a meeting of the Lake of the Woods Water Control Board (1990 PPPRT meeting minutes). Maxson and Haws (1990) recommend discussing with the water board the problem caused by the board maintaining high water levels during the plover's breeding season. They report beach erosion and nest loss from storms together with high water levels are a problem.

Canadian Wildlife Service: No plovers were reported during colonial waterbird surveys in the Great Lakes area (H. Blokpoel, pers. comm.).

5.0 NORTH AMERICAN AND PRAIRIE CANADA PIPING PLOVER POPULATIONS

Surveys and estimates of Piping Plover populations at various sites in North America in 1990 accounted for 4004 adult plovers (Table 1). Readers should note that the 1990 population information includes limited count data from parts of regions (e.g. seven sites - Alberta pair and brood surveys) and therefore does not represent a complete estimate of the North American population. The estimated 1990 Prairie Canada population, using regional estimates, is about 860 adults (Table 2).

6.0 PRAIRIE CANADA PIPING PLOVER MONITORING PROGRAM

Standardized pair and brood surveys in Prairie Canada, which began in 1989 (Goossen 1990a), were carried out in Prairie Canada during 1990 (Table 3) and the resulting data allow for a preliminary analysis of population fluctuations (Table 4). The results of the pair survey indicate declines of 0.6% to 60% of adult populations at sites surveyed in Alberta, Manitoba and Ontario while Saskatchewan data indicate a slight increase in the number of adults. Brood survey data shows a decline of chicks in all four provinces, with declines ranging from 13% to 75%. There still is very little documentation demonstrating what the major causes of chick mortality are.

Table 1. North American Piping Plover breeding population regional estimates and counts (1986/87-1990).[1]

Location	Number of Adults			
	1986-87[2]	1988[3]	1989[4]	1990[5]
Prairie Canada	1152-1288	925	557-670	531
U. S. Great Plains	1364	1612	1459	1523
Total Prairie and Plains	2516-2652	2539	2016-2129	2054
Canadian Great Lakes	0	0	0	0
U.S. Great Lakes	34	31	30-32	31
Atlantic Canada	446	465	466	472
U. S. Atlantic	1134	1288	1448	1478
Total Atlantic	1580	1753	1914	1950
Total Canada	1598-1734	1392	1023-1136	1003
Total U.S.	2532	2931	2937-2939	3032
Total	4130-4266	4323	3960-4075	4035

[1] Data for 1986/87 and 1988 represent regional estimates while the 1989 and 1990 data reflect primarily counts at specific sites.
[2] Sources - Haig et al. 1988. Great Lakes and Northern Great Plains Piping Plover Recovery Plan. United States Fish and Wildlife Service. Twin Cities, Minnesota. 160 pp.; S. Haig (compiler, unpubl. data). Values for the Great Lakes and Prairie Canada are for 1986.
[3] Sources - see Goossen 1990b.
[4] Source - S. Haig (compiler, unpubl. data).
[5] Source - S. Haig (compiler, unpubl. data).

Table 2. Adult Piping Plover population estimate for Prairie Canada 1986 and 1988-1990.

Province	Year 1986[1]	1988[2]	1989[3]	1990[4]
Alberta	300+[5]	220+	220+	220+
Saskatchewan	712-800	500	500	500
Manitoba	132-180	200	128	135
Ontario (Lake of the Woods)	8	5	10	4
Total Prairie Canada	1152-1288	925	858	859

[1] Source - Haig et al. 1988. Great Lakes and Northern Great Plains Piping Plover Recovery Plan. United States Fish and Wildlife Service, Twin Cities, Minnesota. 160 pp. and Wershler, C. In prep. Management plan for the Piping Plover in Alberta. Prepared for Alberta Fish and Wildlife and World Wildlife Fund Canada - Prairie for Tommorrow.

[2] Sources - see Goossen 1990b.

[3] Sources - Alberta (Wershler's 1988 population estimate used for 1989 estimate), Saskatchewan (Harris's 1988 population estimate used for 1989 estimate), Manitoba (1989 PPPRT meeting minutes), Ontario (Lambert and Risely 1989).

[4] Sources- Alberta (Wershler's 1988 population estimate used for 1990 estimate), Saskatchewan (W. Harris, pers. comm.), Manitoba (W. Koonz pers. comm.), Ontario (Heyens 1990).

[5] The symbol + means more than the indicated number.

Table 3. Prairie Canada Piping Plover monitoring program (1990).

Site surveyed	Breeding survey[a]	Brood survey[b]	Source
Alberta			
Dowling Lake	13	16+14	J. P. Goossen
Chain Lakes site	12	5+0	Ibid.
Handhills Lake	27	31+19	Ibid.
Reflex Lakes site[c]	21	34+19	Ibid.
Chappice Lake	11	4+0	Ibid.
Rockeling Bay[d]	22	9+8	Ibid.
"Rider Lake"[e]	17	13+7	Ibid.
Little Fish Lake	48	38+11	Hofman (1990)
TOTAL	171	150+78	
Saskatchewan			
Big Quill Lake	98[f]	134+16	Harris and Lamont (1990)
Lake Diefenbaker	33	0+0	Ibid.
Redberry Lake	25	6+0	Ibid.
Chaplin Lake	66[g]	63+59	Ibid.
South Sask. River	2	1+0	Ibid.
TOTAL	224	204+75	
Manitoba			
Long Point area[h]	24	50+3	Koonz (1990)
West Shoal Lake	36	64+3	Ibid.
Riverton island(s)	5	1+0	Ibid.
Clandeboye Bay	0	0+0	W. Koonz pers. comm.
Grand Marais	13	10+0	Ibid.
TOTAL	78	125+6	
Ontario			
Sable Islands	4	2+1	Heyens (1990)
Windy Point	0	0+0	Ibid.
TOTAL	4	2+1	

[a] Number of adults.
[b] Number of adults + young.
[c] Lake lies on Saskatchewan - Alberta border. Data reflects entire lake survey.
[d] Old name was Rockland Bay (Anon. 1988. Gazetter of Canada. Alberta. Energy, Mines and Resources Canada. Ottawa. 64 pp. plus a map.)
[e] Not official name (located 2 km northeast of Buffalo Lake).
[f] 98 adults seen but estimate 110 (Harris and Lamont 1990).
[g] 66 adults seen but estimate 68 (Harris and Lamont 1990).
[h] Includes spit on Long Point and spit to the southwest of Long Point.

Table 4. Piping Plover population changes in Prairie Canada from 1989 to 1990.[a]

Province	Adults		Young
	Breeding Survey (% change)	Brood Survey (% change)	(% change)
Ontario	-60	-83	-75
Manitoba	-21	+24	-73
Saskatchewan	0 (+2)[b]	+84	-54
Alberta	- 0.6	+ 7	-13

[a] For 1989 data sources see Goossen (1990a) and for 1990 data see Table 3 in this report. Includes only those sites surveyed in both 1989 and 1990.

[b] Percent in brackets includes estimated population data (see footnotes in Table 3 of Goossen (1990a and this report).

7.0 BANDING - 1990

No Piping Plovers were banded, to my knowledge, in Manitoba (W. Koonz pers. comm.), Ontario or Alberta. In Saskatchewan, 79 Piping Plovers were banded as follows: 47 young and one adult at Big Quill Lake and 31 young at Chaplin Lake (W. Harris pers. comm.).

8.0 FUTURE EVENTS

INTERNATIONAL CENSUS

The winter portion of the 1991 international Piping Plover census begins in January with surveys to be carried out in Mexico, coastal United States and the Caribbean. Breeding ground surveys in continental North America begin in June. Provincial agencies have surveys plans underway for their regions. Saskatchewan remains a problem as numerous lakes on the Missouri Coteau have not been surveyed for Piping Plovers. The United States Fish and Wildlife Service is looking into the possibility of sending some of its staff to assist with the Canadian survey effort (J. Sidle *in litt.*). This effort will be directed toward assisting the Saskatchewan effort.

9.0 NEW INITIATIVES

GRADUATE STUDY: Heather Dundas has begun a Master of Science project on Piping Plover habitat through the University of Saskatchewan under the direction of Dr. A. W. Diamond (CWS). Preliminary field data were collected during the spring and summer of 1990. The study arises out of the PPPRT's interest in having research done on food, foraging and habitat of Piping Plovers (Goossen 1990a).

10.0 AGENCY SUPPORT

At least fourteen government and private agencies were involved with various aspects of Piping Plover work in 1990. These are listed in Table 5.

11.0 REPORTS AND PUBLICATIONS

Recent reports and publications are listed as follows:

Prairie Canada

Anonymous, 1990. Alberta's threatened wildlife. Piping Plover. Alberta Forestry, Lands and Wildlife. Fish and Wildlife Division. 6 pp.

Brechtel, S. 1990. Alberta Piping Plover programs 1990. Unpublished Alberta Fish and Wildlife report. 1 pp.

Crane, J. 1990. Plovers of Îles de la Madeleine. The Living Bird Quarterly 9(3):20-21.

Goosen (sic), J. P. 1989. Surveys and conservation of Piping Plovers in Canada. Wader Study Group Bulletin 57:53-57.

Goossen, J.P. 1990a. Prairie Piping Plover conservation: second annual report (1989). Unpublished Canadian Wildlife Service report. 20 pp. plus an appendix.

Goossen, J. P. 1990b. Piping Plover research and conservation in Canada. Blue Jay 48:139-153.

Goossen, J.P. and J. Sirois. 1990. Wintering ground surveys for Piping Plovers in Cuba. Unpublished Canadian Wildlife Service report. 7 pp. plus appendices and Spanish translation.

Harris, W. C. and S. M. Lamont. 1990. Saskatchewan Piping Plover population assessment - 1990: Big Quill Lake, Chaplin Lake, Lake Diefenbaker, Redberry Lake and the South Saskatchewan River (Gardiner Dam to Saskatoon). Unpublished report prepared for the Saskatchewan Environmental Society. 28 pp. plus an appendix.

Heyens, L.E. 1990. Piping Plover survey Sable Islands Provincial Nature Reserve. Piping Plover survey Windy Point - Lake of the Woods. Unpublished Ontario Ministry of Natural Resources field report. 2 pp. plus a map.

Hjertaas, D. 1990. Saskatchewan report to Piping Plover Recovery Team 1990. Unpublished Saskatchewan Wildlife Branch report. 1 pp.

Hjertaas, D. 1991. 1990 Piping Plover distribution survey in Saskatchewan. Unpublished Saskatchewan Parks and Renewable Resources report. 8 pp. plus an appendix and literature cited.

Hofman, D.E. 1990. 1990 Piping Plover survey Little Fish Lake, Alberta. Unpublished Alberta Fish and Wildlife report. 8 pp. plus tables and figures.

Table 5. Government and private agencies involved in or supporting Piping Plover research and/or conservation in Prairie Canada during 1990.

Agency	Type of involvement	Type of support
1. Alberta Fish and Wildlife	Management planning/ habitat protection/ surveys/recovery team/ public education/ training	Funding/Staff
2. Canadian Wildlife Service	Surveys/recovery team/ media/publication/ habitat study	Funding/Staff/ Administration
3. Manitoba Parks Branch	Protection/public education	Staff
4. Manitoba Wildlife Branch	Surveys/recovery team/ management planning	Funding/ Staff
5. Ontario Ministry of Natural Resources	Surveys/recovery team/ management planning	Staff
6. Prairie Environmental Services Inc.*	Surveys	Contractor
7. Saskatchewan Environmental Society	Surveys	Administration/ Funding
8. Saskatchewan Natural History Society	Surveys/recovery team/international survey planning/habitat study	Administration/ Funding/Staff
9. Saskatchewan Wildlife Branch	Survey planning/ recovery team/ management planning	Staff/Funding
10. Saskatchewan Wildlife Federation	Habitat study	Funding
11. Sweetgrass Consultants Ltd.	Surveys	Contractor
12. United States Fish and Wildlife Service	Recovery team - observer/public education planning/ survey planning	Staff

Table 5 continued.

Agency	Type of involvement	Type of support
13. University of Saskatchewan	Graduate habitat study	Administration
14. World Wildlife Fund (Canada)**	Habitat protection and study/surveys	Funding

* Surveys funded through the Endangered Species Recovery Fund (World Wildlife Fund, CWS, the Canadian National Sportsmen's Shows), CWS Western and Northern Region and the Saskatchewan Environmental Society.

** Endangered Species Recovery Fund and the Saskatchewan Endangered Species Fund (World Wildlife Fund and the Saskatchewan government).

Koonz, B. 1990. Manitoba 1990 Piping Plover report. Unpublished Manitoba Department of Natural Resources report. 4 pp.

Wershler, C. In prep. Piping Plover surveys in Alberta, 1990. Unpublished report prepared for the Alberta Fish and Wildlife Service.

United States

Allan, T. 1990. Protecting plovers improves productivity. Abstract. 52nd Midwest Fish and Wildlife Conference, 2-5 December 1990, Minneapolis, Minnesota.

Kirsch, E. M. 1990. Ecology of Least Terns and Piping Plovers on the lower Platte River, Nebraska. Final report. Unpublished report submitted to the Nebraska Game and Parks Commission. 39 pp. plus a figure, tables and appendices.

MacIvor, L. H., S. M. Melvin and C. R. Griffin. 1990. Effects of research activity on Piping Plover nest predation. J. Wildl. Manage. 54:443-447.

Mayer, P.M., M. P. Dryer, D. Christopherson, B. Dirks, and E. McPhillips. 1990. Abstract: Biology, threats, and conservation of Least Terns and Piping Plovers on the Missouri River. 52nd Midwest Fish and Wildlife Conference, 2-5 December 1990, Minneapolis, Minnesota.

Maxson, S. J. and K. V. Haws. 1990. 1990 status and breeding summary of Piping Plovers and Common Terns at Lake of the Woods, Minnesota. Unpublished Minnesota Department of Natural Resources report. 8 pp. plus a map, tables and banding schedule.

Nicholls, J. L. and G. A. Baldassarre. 1990. Winter distribution of Piping Plovers along the Atlantic and gulf coasts of the United States. Wilson Bulletin 102:400-412.

Nicholls, J. L. and G. A. Baldassarre. 1990. Habitat associations of Piping Plovers wintering in the United States. Wilson Bulletin 102:581-590.

Nordstrom, L. H. and M. R. Ryan. 1990. Assessment of habitat for reestablishment of Piping Plovers in the Great Lake region. Abstract. 52nd Midwest Fish and Wildlife Conference, 2-5 December 1990, Minneapolis, Minnesota.

Rimmer, D. W. and R. D. Deblinger. 1990. Use of predator exclosures to protect Piping Plover nests. J. Field Ornith. 61:217-223.

Ryan, M. R., B. G. Root and P. M. Mayer. 1990. A population viability model for Piping Plovers in the Great Plains. Abstract. 52nd Midwest Fish and Wildlife Conference, 2-5 December 1990, Minneapolis, Minnesota.

Sidle, J. G. 1990. To list or not to list. The Living Bird Quarterly 9(3):16-19; 22-23.

Taylor Gray, M. 1990. The Piping Plover a rare bird comes to Colorado. Colorado Outdoors 39(2):20-21.

APPENDIX 1

Provincial wildlife agency reports - 1990

Alberta Piping Plover Programs 1990

During the 1990 breeding season, activities focused on preparing for the 1991 international census, continuing pair/production surveys, habitat protection at Little Fish Lake, and preparation of a Provincial Management Plan. Key elements were:

1) A contract with Sweetgrass Consultants (Cleve Wershler) to complete the searches of the remaining 6 historic nesting areas in Alberta on the periphery of present range. No new nesting areas were located. Cleve will report on his findings and recommendations.

2) A training session was organized for regional Biological/technical staff in the Hanna area to prepare for 1991. Paul Goosen lead the group of 10 Divisional staff to known and suspected nesting areas at Little Fish, Handhills and Dowling Lakes.

3) Following the training session, Gary Erickson located a new nesting pair at Keho Lake and other staff documented use at Spiers Lake (Pat Young) and West of Metiskow (Dave Moore). The pair at Keho Lake lost their original nest to flooding, but either they renested, or a new pair moved into the same area and successfully hatched young.

4) Paul Goosen continued his pair and production surveys on key lakes.

5) Ron Bjorge (central region) carried out 4 pair/production surveys at Little Fish Lake.

6) Fencing of shoreline habitat to exclude cattle grazing was completed on two areas of Little Fish Lake. This was organized by Fish and Wildlife Red Deer and paid for by Prairie for Tomorrow. One key area remains to be fenced and negotiations with the lease holder and Special Areas are ongoing.

7) Fish and Wildlife published a Piping Plover brochure in the "Alberta's Threatened Wildlife" series. These can be made available to other agencies, and will be broadly circulated in Alberta.

8) A Provincial Management Plan for Piping Plovers has been prepared, reviewed by Fish and Wildlife and CWS staff and will be submitted for Divisional Approval this Fall. A copy of the approved plan will be circulated to all team members.

Steve Brechtel

SASKATCHEWAN REPORT TO PIPING PLOVER RECOVERY TEAM 1990

1. An improvement in water levels has allowed some recovery in Piping plover populations at places like Chaplin Lake. Wayne Harris will report on the monitoring conducted for conducted for the SNHS and CWS.

2. Monitoring of enhancement projects at Chaplin Lake and Little Quill lakes showed no use by Piping Plover.

3. I identified remaining areas in Saskatchewan where Piping Plovers might be expected. In cooperation with the SNHS and with WWF support Prairie Environmental Consultants searched these areas. few plover were found. Unfortunately water levels were poor in some areas and with the low population of the past several years, apparently suitable habitat leaves open the possibility of Piping Plover using some of these lakes in the future.

Several small lakes in the Missouri Couteau supported Piping Plover. This indicates that their could be more in this area, especially if water levels improve. Searching it will be a major problem for 1991.

4. Paul Goossen and I met with a representative of Sask. Water Corporation to discuss management of Lake Diefenbaker and the South Sask River. We are currently formally drawing our concerns and recommendations to the attention of the South Sask. River Basin Study which is preparing management recommendations for the river system. We are at the tail end of the study, but better late than never.

5. Plans for the 1991 census have been initiated with hiring of Margaret Skiel by the SNHS to act as coordinator. CWS is providing financial support for this endeavour.

Dale Hjertaas.

Bill Koonz
September 6, 1990

Manitoba 1990 Piping Plover Report.

Piping Plover reproductive success in 1990 was low, owing to drought conditions, torrential rains and human disturbance.

Field work was primarily conducted between 27 May and 14 June for the breeding pair survey (Table 1) and 2-10 July for the productivity evaluation (Table 2). An island survey conducted on central Lake Winnipeg 16-26 July for general birdlife revealed Piping Plovers on two islands.

Table 1. Piping Plover Breeding Pair Survey 27 May to 14 June.

Location	Survey Date	Pair Numbers	Single Adults	Nests Found	Eggs
West Shoal Lake (W.Shore)	27 May	4	0	0	0
West Shoal Lake (S.Shore)	30 May	14	0	2	7
N.Side, Gull Bay Sand Spit	6 June	7	1	0	0
S.Side, Gull Bay Sand Spit	7 June	4	1	0	0
Riverton Islands	31 May	2	1	0	0
Grand Marais Is., Mainland	29 May	6	1	2	7
Totals		37	4	4	14

Table 2. Piping Plover Productivity Evaluation, 2-10 July 1990 (Lake Winnipeg Islands, 16-26 July).

Location	Survey Date	Pair Numbers	Single Adults	Juveniles*
West Shoal Lake, W.Side	4 July	15	0	2
West Shoal Lake, S.End	4 July	16	2	1
Grand Marais	2 July	5	0	0
Riverton Islands	6 July	0	1	0
N. Side, Gull Bay Sand Spit	10 July	6	5	0
S. Side, Gull Bay Sand Spit	10 July	4	25	3
Gull Is., L. Winnipeg	16 July	1	1	3
Most N. Egg Is., L. Wpg.	23 July	1	0	0
Totals		48	34	9

*Lake Winnipeg and West Shoal Lake water levels increased 25cm. June 14 to July 2, flooding nests and forcing juveniles into cover where they were difficult to find. Feigning and calling adults, however, suggested that uncounted young were present.

Results and Discussion

Problems existed at all major breeding sites.

1) The Clandeboye Bay area had excellent looking habitat in spring but extensive use of the area by ATVs from St. Ambroise likely caused the birds to desert. Law enforcement, trail disruption and local education are needed to assist future breeding attempts there.

2) West Shoal Lake, west side was presumed to have had some reproductive success. Nesting areas were generally above the high-water line. 'Adult feigning and calling was evident at 5 locations where juveniles were likely present.

3) West Shoal Lake, south end problems continued due to

unusually low spring water levels followed by water depth increases and sheet-water that inundated most nests. Increased water levels forced juveniles and renesting adults into the vegetation. Adult feigning, considerable calling and surrounding adult fly-ins occurred at six locations which may have had reproductive success. Most nesting at the south end of the lake occurs in concentrated areas that could be managed if identified early in the breeding season (fenced or raised).

4) The Grand Marais Island and mainland areas suffered water level increases, humans and ATVs. A mainland nest had an enclosure placed over it, but one of the adults became entangled in the mesh cover and subsequently abandoned the nest. A visit to the Grand Marais area on 2 July (the long Week-end) revealed 3 dogs and at least 20 people on Grand Marais Island. The island area, where a nest had been found earlier, had recently been used for a bonfire and a fireworks launching pad. A program with Provincial Parks staff at nearby Grand Beach and local education are essential for Piping Plover breeding success in the area.

5) The first Riverton Sand Island off the mainland contained a pair of birds in May, however, ATV tracks were evident as the water depth between that island and the mainland was only a few centimeters. Higher water levels deepened the access to the first island and should prevent ATV use there if they are maintained. Only one adult was seen on the July visit.

6) The Gull Bay Sand Spit, north side had considerably less ATV use in 1990, but the commercial fishing season was opened to all Grand Rapids fishermen and human activity on the beach was excessive. There was also evidence that someone had carried a rifle along the beach as shorebirds generally were lacking there and an empty cartridge box for 22 shells was found along the ATV trail. Official designation of the Gull Bay Sand Spit as a Special Conservation Area is eminent and essential for future Piping Plover management there.

7) The Gull Bay Sand Spit, south side suffered from wind tides and rising water levels. The low nesting islands were over-run by water. Only a portion of the mainland nesting site escaped being flooded.

8) Optimism arose from Piping Plovers being found on Lake Winnipeg islands. Over 80 islands and beaches were surveyed, resulting in three pairs of plovers being identified. Many more islands await surveys planned for 1991. The large flocks of unbanded adult plovers on the south Gull Bay sand spit indicate that more unrecorded breeding areas exist on Lake Winnipeg.

Proposed Projects For 1991

1. Monitor all use areas (breeding pairs, productivity).
2. Survey remaining islands on Lake Winnipeg.
3. Monitor Shoal Lake nests, manage for water levels.
4. Ensure that ATV use is prohibited at Gull Bay.
5. Work with Parks to enhance nesting at Grand Marais and at Clandeboye Bay.

W. Koonz
August 26, 1990

Piping Plover band records for 1990 in Manitoba.

Location	Observations
West Shoal Lake, west shore	1. White flag on left leg 2. White flag above L. knee, silver R.
West Shoal Lake, south shore	1. White flag, L. leg 2. White flag, L. leg 3. Green flag above L. knee, green band at ankle, bird's L. foot missing
Grand Marais	1. Green over silver R., white flag L. 2. Green flag with green over on left. two bands on R., green above. 3. Silver on left. 4. White flag left leg. 5. White flag on R., green plus silver L. 6. Green band, no flag
Gull Bay, N. Spit	1. White flag L. leg, green on R.
Gull Bay, S. Spit	No bands were seen, close observations were made of over 30 individual adults.

PIPING PLOVER SURVEY
SABLE ISLANDS PROVINCIAL NATURE RESERVE

The above provincial nature reserve was surveyed by Leo Heyens on May 30, 1990 and July 28, 1990 to document the breeding status of the Piping Plover (Charadrius melodus).

This survey was completed by walking the entire length of the Islands twice on May 30th, and only the nesting area was checked on July 28th. Boat access to the Islands was obtained through Oak Grove Camp near the mouth of the Rainy River.

Observations

Two pair of piping plovers were observed at the usual location on the north island (see attached map). One adult appeared to have a silver band (CWS) on its left leg and another adult appeared to have both a red band and a dark flag on its left leg. The remaining two adult birds appeared to be unbanded. Both pair of plovers gave distress calls and broken wing displays. No nest was actually located although a number of nest scraps were noticed in the immediate vicinity. The author did not attempt to find the exact nest locations.

Average to low water conditions on Lake of the Woods during May and early June resulted in expansive areas of suitable dry beach habitat. It was possible to walk on dry sand between the south and north Islands. Heavy rains during middle to late June resulted in rising water levels in the Lake. This rise in water levels during the critical incubation period appears to have resulted in poor recruitment of young for some shorebirds and waterfowl (ie. spotted sandpiper and common loon). It is not known what impact (if any) this water level situation had on the fledgling success of the Piping Plover.

The nesting location on the north island was checked on July 28th and one adult plover and one fully fledged chick were observed. An individual adult plover was also observed feeding near the north end of the north island. As this chick was fully fledged by July 28th, it is quite possible that fledged young were feeding elsewhere on the Sable Islands.

Other species of significance noted during this survey included Wilson's phalarope (7), yellow-headed blackbird, Black tern (40) and Western grebe (2).

A Endangered Species Recovery Fund Project', to produce a brochure and to erect signage to prohibit entry into the nesting area did not proceed due to time constraints and other commitments. This project will be re-submitted for 1991 providing a suitable sponsor can be found.

PIPING PLOVER SURVEY
WINDY POINT - LAKE OF THE WOODS

Windy Point was surveyed on May 30th and again on July 28th, 1990. No plovers were observed on the point during these two field trips. Suitable habitat continues to be available at this location. However, the point continues to be used by loafing gulls and pelicans and fox tracks were present on both survey days.

L.E. Heyens
A/ Resource Management Supervisor
Kenora District

LEH/ml

Other - Ontario

Siting - Turkey Point Beach - Lake Erie
- Date - 26 April (1 adult)
- Long Point ? -unknown . Private Land - no access

Planning - mlgmt. Plan
Sable Islands Prov. Nature Reserve

Mtg - Lake of the Woods Water Control Board
Ontario + Minnesota

SABLE ISLANDS

PIPING PLOVER SURVEY - May 30, 1990